

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer implemented method for automatically nullifying variables in a middleware computer program, said method comprising:

reading, by a just in time compiler, one or more variables included in one or more activation records included in the middleware computer program, wherein the variables reference one or more objects, the objects stored in a garbage collected heap stored in a computer memory;

identifying, by the just in time compiler, a program statement in the middleware computer program where a selected variable is last used; [[and]]

inserting, by the just in time compiler, a nullification statement after the identified program statement, the nullification statement adapted to nullify the selected variable~~[[.]]~~;

writing the activation records, the identified program statement, and the nullification statement to a resulting code file for the middleware computer program;

executing the middleware computer program, wherein the executing further comprises:

executing the nullification statement to nullify the selected variable; and

after nullifying the selected variable, executing a garbage collection program, wherein executing the garbage collection program comprises identifying one of the objects that was previously referenced by the selected variable, and reclaiming the memory occupied by the identified object.

2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Original) The method of claim 1 wherein the activation records include one or more local variable definitions.
6. (Original) The method of claim 1 wherein the activation records include one or more argument parameters.
7. (Canceled)
8. (Canceled)
9. (Currently Amended) The method of claim [[8]] 1 further comprising:
identifying one or more program statements from the plurality of program statements where one or more other variables are last used; and

writing nullification statements for each of the other variables following the identified program statement corresponding to the variable's last use to the resulting code file.
10. (Currently Amended) An information handling system comprising:

one or more processors;

a memory accessible by the processors;

a middleware software application that runs on the operating system, the middleware software application including a garbage-collected heap; and

a nullification tool for nullifying program references, the nullification tool comprising steps effective to:

read, by a just in time compiler, one or more variables included in one or more activation records included in the middleware software application, wherein the variables reference one or more objects, the objects stored in the garbage-collected heap;

identify, by the just in time compiler, a program statement in the middleware software application where a selected variable is last used;
[[and]]

insert, by the just in time compiler, a nullification statement after the identified program statement, the nullification statement adapted to nullify the selected variable[[]];

write the activation records, the identified program statement, and the nullification statement to a resulting code file for the middleware software application;

execute the middleware software application;

during execution of the middleware software application, execute the nullification statement to nullify the selected variable; and

after nullifying the selected variable, execute a garbage collection program to identify one of the objects that was previously referenced by the selected variable, and reclaim the memory occupied by the identified object.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Currently Amended) A computer program product stored in a computer operable media, the computer operable media containing instructions for execution by a computer, which, when executed by the computer, cause the computer to implement a method for automatically nullifying variables in a middleware computer program, said method comprising:

reading, by a just in time compiler, one or more variables included in one or more activation records included in the middleware computer program, wherein the variables reference one or more objects, the objects stored in a garbage collected heap stored in a computer memory;

identifying, by the just in time compiler, a program statement in the middleware computer program where a selected variable is last used; [[and]]

inserting, by the just in time compiler, a nullification statement after the identified program statement, the nullification statement adapted to nullify the selected variable[[.]];

writing the activation records, the identified program statement, and the nullification statement to a resulting code file for the middleware computer program;

executing the middleware computer program, wherein the executing further comprises:

executing the nullification statement to nullify the selected variable; and

after nullifying the selected variable, executing a garbage collection program, wherein executing the garbage collection program comprises identifying one of the objects that was previously referenced by the selected variable, and reclaiming the memory occupied by the identified object.

16. (Canceled)

17. (Canceled)
18. (Canceled)
19. (Original) The computer program product of claim 15 wherein the activation records include one or more local variable definitions.
20. (Original) The computer program product of claim 15 wherein the activation records include one or more argument parameters.
21. (Canceled)
22. (Canceled)
23. (Previously Presented) The computer program product of claim 15 wherein the method further comprises:
 - identifying one or more program statements from the plurality of program statements where one or more other variables are last used; and
 - writing nullification statements for each of the other variables following the identified program statement corresponding to the variable's last use to the resulting code file.
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (New) The information handling system of claim 10 wherein the activation records include one or more local variable definitions.
28. (New) The information handling system of claim 10 wherein the activation records include one or more argument parameters.

29. (New) The information handling system of claim 10 wherein the nullification tool further comprises steps effective to:

identify one or more program statements from the plurality of program statements where one or more other variables are last used; and

write nullification statements for each of the other variables following the identified program statement corresponding to the variable's last use to the resulting code file.